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# A BILL FOR AN ACT

RELATING TO ENERGY.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1           SECTION 1. There have been several recent economic studies  
2 on the benefits of increasing energy efficiency and indigenous  
3 renewable energy resources as a method of stimulating local  
4 economic growth. These studies include Black and Veatch,  
5 Assessment of the Potential Impacts of a Renewable Portfolio  
6 Standard in Pennsylvania; a University of Nevada report, The  
7 Potential Economic Impact of Nevada's Renewable Energy  
8 Resources; University of Illinois, Regional Economic  
9 Applications Laboratory Report, Job Jolt: The Economic Impact  
10 of Repowering the Midwest; and Howard Geller, Energy Efficiency  
11 and Job Creation.

12           An energy efficiency utility is an entity that provides a  
13 comprehensive and consistent set of energy efficiency programs  
14 to electric consumers. This innovation would significantly  
15 improve upon the energy efficiency programs delivered by  
16 individual electric utilities operating in the State. This  
17 concept takes advantage of the fact that installing energy  
18 efficiency measures can cost much less per kilowatt-hour than



1 installing new generation capacity. For example, Efficiency  
2 Vermont is an independent entity whose sole mission is energy  
3 efficiency. It provides technical advice, financial assistance,  
4 and design guidance to help make Vermont homes and businesses  
5 more energy efficient. Efficiency Vermont is funded by an  
6 "energy efficiency charge" that appears on consumers' electric  
7 bills. Efficiency Vermont was a 2003 winner of Harvard  
8 University's Kennedy School of Government's Innovations in  
9 American Government Award.

10 Under the current electricity rate structure, an electric  
11 utility company operates under conflicting objectives. An  
12 electric utility must sell electrons to earn a profit; however,  
13 public utility commission regulation also requires the electric  
14 utility to provide customers with energy efficiency devices  
15 designed to reduce their electricity usage.

16 Furthermore, electric utilities are guaranteed cost  
17 recovery plus profits for building infrastructure to meet peak  
18 demand. There are no adequate financial incentives to increase  
19 system utilization, that is, for an electric utility to flatten  
20 or level its load, which tend to be more beneficial to the  
21 rate-payer. Such a model tends to be inefficient as it overly

1 focuses on meeting peak load rather than average load at the  
2 rate-payer's expense.

3 The purpose of this Act is to authorize the public  
4 utilities commission to establish an energy efficient utility  
5 and energy efficiency portfolio standard.

6 SECTION 2. Chapter 269, Hawaii Revised Statutes, is  
7 amended by adding five new sections to be appropriately  
8 designated and to read as follows:

9 "§269-A Public benefits fund; authorization. The public  
10 utilities commission, by order or rule, may redirect the funds  
11 collected through the current demand-side management surcharge  
12 by Hawaii's electric utilities into a public benefits fund that  
13 may be established by the commission. If the public utilities  
14 commission establishes a public benefits fund, the surcharge  
15 shall be known as the public benefits fee. The fee shall be  
16 shown separately on each customer's bill, paid to a fund  
17 administrator appointed by the public utilities commission, and  
18 deposited into the fund. Moneys in the fund shall be ratepayer  
19 funds that shall be used to support demand-side management and  
20 renewable energy programs and services that meet the  
21 requirements of section 269-92. Balances in the fund shall be  
22 carried forward and remain in the fund at the end of each fiscal



1 year. These moneys shall not be available to meet any current  
2 or past general obligations of the State. Interest earned shall  
3 accrue to the fund.

4 **§269-B Public benefits fund administrator; establishment.**

5 The public utilities commission shall appoint a fund  
6 administrator to operate and manage the programs established in  
7 section 269-A. The fund administrator shall not expend more  
8 than ten per cent of the fund in any fiscal year for  
9 administration of the programs established by section 269-A.  
10 The fund administrator shall report to the public utilities  
11 commission on a regular basis. The fund administration shall be  
12 delegated to a third party based upon the requirements imposed  
13 upon the public utilities commission in section 269-C.  
14 Notwithstanding any other provision of law, the fund  
15 administrator shall not be a utility or a utility affiliate.

16 **§269-C Requirements for the public benefits fund**

17 **administrator.** The fund administrator shall:

- 18 (1) Have experience and expertise in energy efficient and  
19 renewable energy technologies and methods;
- 20 (2) Have experience and expertise in implementing  
21 demand-side management or energy efficiency and  
22 renewable energy programs;

- 1        (3) Promote and implement programs, methods, and  
2        technologies that support energy efficiency and the  
3        use of renewable energy;
- 4        (4) Require that continued or improved efficiencies be  
5        made in the production, delivery, and use of  
6        demand-side management and renewable energy products  
7        and services;
- 8        (5) Build on the energy efficiency expertise and  
9        capabilities that have developed or may develop in the  
10       State and consult with state agency experts;
- 11       (6) Promote program initiatives, incentives, and market  
12       strategies that address the needs of individuals or  
13       businesses facing the most significant barriers to  
14       participation;
- 15       (7) Promote coordinated program delivery, including  
16       coordination with low-income home energy assistance  
17       and other demand-side management and renewable energy  
18       programs, and utility programs;
- 19       (8) Consider innovative approaches to delivering  
20       demand-side management and renewable energy products  
21       and services, including strategies to encourage third  
22       party financing and customer contributions to the cost



1 of demand-side management and renewable energy  
2 products and services; and  
3 (9) Submit to the public utilities commission for review  
4 and approval a multi-year budget and planning cycle  
5 that promotes program improvement, program stability,  
6 and maturation of programs and delivery resources.

7 **§269-D Transitioning from utility demand-side management**  
8 **programs to the public benefits fund.** If the public utilities  
9 commission establishes a public benefits fund pursuant to  
10 section 269-A, the commission shall:

11 (1) Develop a transition plan that ensures that utility  
12 demand-side management programs are continued until  
13 the transition date, to be established by the public  
14 utilities commission, and that the fund administrator  
15 will be able to provide demand-side management and  
16 renewable energy products and services on the  
17 transition date;

18 (2) Ensure that all retail electricity customers,  
19 including state and county agencies, regardless of the  
20 retail electricity or gas provider, have an  
21 opportunity to participate in and benefit from a  
22 comprehensive set of cost-effective demand-side



1 management and renewable energy programs and  
2 initiatives designed to overcome barriers to  
3 participation;

4 (3) Approve programs, measures, and delivery mechanisms  
5 that reasonably reflect current and projected utility  
6 integrated resource planning, market conditions,  
7 technological options, and environmental benefits;

8 (4) Provide for delivery of these programs as rapidly as  
9 possible, taking into consideration the need for these  
10 services and cost-effective delivery mechanisms;

11 (5) Consider the unique geographic location of the State  
12 and the high costs of energy in developing programs  
13 that will promote technologies to advance energy  
14 efficiency and use of renewable energy and permit the  
15 State to take advantage of activities undertaken in  
16 other states, including the opportunity for  
17 multi-state programs;

18 (6) Provide for independent evaluation of programs  
19 delivered under section 269-A;

20 (7) Require that any entity approved by the public  
21 utilities commission under section 269-C deliver  
22 programs in an effective, efficient, timely, and

1 competent manner and meet standards that are  
2 consistent with state policy and public utilities  
3 commission decisions; and

4 (8) On or before January 1, 2008, and every three years  
5 thereafter, require verification by an independent  
6 auditor of the reported energy and capacity savings  
7 and incremental renewable energy production savings  
8 associated with the programs delivered by any entity  
9 appointed by the public utilities commission to  
10 deliver demand-side management and renewable energy  
11 programs under section 269-A.

12 **§269-E Energy efficiency portfolio standards.** (a) Each  
13 electric utility company that sells electricity for consumption  
14 in the State shall achieve a statewide energy efficiency  
15 portfolio standard based on an energy efficiency ratio of:

- 16 (1) Ten per cent by December 31, 2015;
- 17 (2) Fifteen per cent by December 31, 2020; and
- 18 (3) Twenty peer cent by December 31, 2025.

19 (b) For purposes of determining the baseline standard, the  
20 baseline shall be 2005."

21 SECTION 3. Section 269-91, Hawaii Revised Statutes, is  
22 amended as follows:



1           1. By adding nine new definitions to be appropriately  
2 inserted and to read:

3           "Energy efficiency" means electrical energy savings  
4 resulting from the use of energy saving devices and systems  
5 approved by the commission.

6           "Energy efficiency portfolio standard" means a requirement  
7 of a utility to achieve a target energy efficiency ratio in a  
8 specific year.

9           "Energy efficiency ratio" means the cumulative quantified  
10 demand side measures divided by net electric sales in that year.

11           "Energy efficiency utility" means a public utility, as  
12 defined under section 269-1, for the reduction in needed  
13 production, conveyance, transmission, delivery, or furnishing of  
14 power.

15           "Net electric sales" means the actual electric sales  
16 recorded on the utility system.

17           "Quantified demand side measures" means those utility  
18 demand side measures reported to the public utilities commission  
19 as net program impacts in megawatt hours, inclusive of all  
20 public utilities commission approved adjustment factors, such as  
21 line losses.

1       "Renewable energy portfolio standard" means a requirement  
2 of a utility to achieve a specific renewable energy ratio in a  
3 specific year.

4       "Renewable energy ratio" means the ratio of indigenous  
5 watts to total demand.

6       "System benefits charge" means a charge on electric bills  
7 designed to fund certain public benefits that are placed at risk  
8 in a more competitive industry, including assistance to  
9 utilities to cover integrated resource planning costs,  
10 assistance for low-income consumers, and funding renewable  
11 energy and energy efficiency research and development."

12       2. By amending the definition of "cost effective" to read:

13       "Cost-effective" means the ability to produce or purchase  
14 electric energy or firm capacity[~~, or both,~~] from renewable  
15 energy resources at or below avoided costs[~~-~~], including any  
16 adjustments for risks, expected costs associated with climate  
17 change policies, and renewable energy credits."

18       3. By amending the definition of "renewable energy" to  
19 read:

20       "Renewable energy" means electrical energy produced by  
21 wind, solar energy, hydropower, landfill gas, waste to energy,  
22 geothermal resources, ocean thermal energy conversion, wave



1 energy, biomass, including municipal solid waste, biofuels, or  
2 fuels derived from organic sources, agricultural residues,  
3 animal byproducts, waste cooking oils or greases, hydrogen fuels  
4 derived from renewable energy, or fuel cells where the fuel is  
5 derived from renewable sources. Where biofuels, hydrogen, or  
6 fuel cell fuels are produced by a combination of renewable and  
7 nonrenewable means, the proportion attributable to the renewable  
8 means shall be credited as renewable energy. Where fossil and  
9 renewable fuels are co-fired in the same generating unit, the  
10 unit shall be considered to produce renewable electricity in  
11 direct proportion to the percentage of the total heat value  
12 represented by the heat value of the renewable fuels.

13 "Renewable energy" also means electrical energy savings brought  
14 about by the use of renewable displacement or off-set  
15 technologies, including solar [and heat pump] water heating,  
16 seawater air-conditioning district cooling systems, solar  
17 air-conditioning, and [~~ice storage, quantifiable energy~~  
18 ~~conservation measures, use of rejected heat from co-generation~~  
19 ~~and combined heat and power systems excluding fossil-fueled~~  
20 ~~qualifying facilities that sell electricity to electric utility~~  
21 ~~companies, and central station power projects] customer-sited,  
22 grid-connected renewable energy systems."~~



1 SECTION 4. Section 269-92, Hawaii Revised Statutes, is  
2 amended to read as follows:

3 "**§269-92 Renewable portfolio standards.** (a) Each  
4 electric utility company that sells electricity for consumption  
5 in the State shall establish a renewable portfolio standard of:

6 [~~(1)~~] ~~Seven per cent of its net electricity sales by~~  
7 ~~December 31, 2003;~~

8 [~~(2)~~] ~~Eight per cent of its net electricity sales by~~  
9 ~~December 31, 2005;~~

10 [~~(3)~~] (1) Ten per cent of its net electricity sales by  
11 December 31, 2010;

12 [~~(4)~~] (2) Fifteen per cent of its net electricity sales by  
13 December 31, 2015; and

14 [~~(5)~~] (3) Twenty per cent of its net electricity sales by  
15 December 31, 2020.

16 [~~The public utilities commission shall determine if an~~  
17 ~~electric utility company is unable to meet the renewable~~  
18 ~~portfolio standards in a cost-effective manner, or as a result~~  
19 ~~of circumstances beyond its control which could not have been~~  
20 ~~reasonably anticipated or ameliorated. If this determination is~~  
21 ~~made, the electric utility company shall be relieved of~~

1 ~~responsibility for meeting the renewable portfolio standard for~~  
2 ~~the period of time that it is unable to meet the standard.]~~

3 (b) If the public utilities commission determined that an  
4 electric utility company failed to meet the renewable portfolio  
5 standard, the utility shall be subject to penalties to be  
6 established by the public utilities commission."

7 SECTION 5. Section 269-27.2, subsection (c), Hawaii  
8 Revised Statutes, is amended to read as follows:

9 "(c) The rate payable by the public utility to the  
10 producer for the nonfossil fuel generated electricity supplied  
11 to the public utility shall be as agreed between the public  
12 utility and the supplier and as approved by the public utilities  
13 commission; provided that in the event the public utility and  
14 the supplier fail to reach an agreement for a rate, the rate  
15 shall be as prescribed by the public utilities commission  
16 according to the powers and procedures provided in this chapter.

17 In the exercise of its authority to determine the just and  
18 reasonable rate for the nonfossil fuel generated electricity  
19 supplied to the public utility by the producer, the commission  
20 shall establish that the rate for purchase of electricity by a  
21 public utility shall not be more than one hundred per cent of  
22 the cost avoided by the utility when the utility purchases the

1 electrical energy rather than producing the electrical energy.  
2 The commission shall require that the public utility offer to  
3 purchase electricity from the producer at prudent renewable  
4 fixed prices under a long-term agreement, subject to such  
5 exceptions as the commission may determine to be just and  
6 reasonable to the public utility consumer and in the public  
7 interest.

8 The ratemaking structure shall also include a methodology  
9 to establish what the fifteen and twenty-year fixed price for  
10 renewable energy power or renewable fuel for power production  
11 shall be. The methodology shall:

- 12 (1) Establish a periodic review process for the  
13 determination of these prudent renewable fixed prices;
- 14 (2) Establish a competitive bidding process for renewable  
15 power, which may be integrated with other power supply  
16 or all source competitive bidding processes at the  
17 public utilities commission's discretion; and
- 18 (3) Define an advanced approval process for the  
19 procurement of long-term fixed price renewable energy  
20 sources that are competitively bid and that cost less  
21 than the prudent long-term fixed price for renewables  
22 as defined under this section.

1        No later than December 31, 2007, the commission shall  
 2 consider and make a determination with respect to each public  
 3 utility that supplies electricity to the public, the public  
 4 utility's offer to purchase electricity from producers of  
 5 nonfossil fuel generated electricity at prudent renewable fixed  
 6 prices under a long-term agreement, and the methodology or  
 7 methodologies to be used by a public utility to determine the  
 8 prudent renewable fixed prices to be offered to such producers."

9        SECTION 6. Section 269-95, Hawaii Revised Statutes, is  
 10 amended to read as follows:

11        "[~~§~~269-95] **Renewable portfolio standards study.** The  
 12 public utilities commission shall:

- 13        (1) By December 31, 2006, develop and implement a utility  
 14 ratemaking structure which may include [~~but is not~~  
 15 ~~limited to~~] performance-based ratemaking, to provide  
 16 incentives that encourage Hawaii's electric utility  
 17 companies to use cost-effective renewable energy  
 18 resources found in Hawaii to meet the renewable  
 19 portfolio standards established in section 269-92,  
 20 while allowing for deviation from the standards in the  
 21 event that the standards cannot be met in a  
 22 cost-effective manner, or as a result of circumstances

1 beyond the control of the utility which could not have  
2 been reasonably anticipated or ameliorated;

3 (2) Gather, review, and analyze empirical data to  
4 determine the extent to which any proposed utility  
5 ratemaking structure would impact electric utility  
6 companies' profit margins, and to ensure that [~~these~~  
7 ~~profit margins do not decrease as a result of the~~  
8 ~~implementation of the proposed ratemaking structure;~~]  
9 the electric utility companies' opportunity to earn a  
10 fair rate of return is not diminished;

11 (3) Using funds from the public utilities special fund,  
12 contract with the Hawaii natural energy institute of  
13 the University of Hawaii to conduct independent  
14 studies to be reviewed by a panel of experts from  
15 entities such as the United States Department of  
16 Energy, National Renewable Energy Laboratory, Electric  
17 Power Research Institute, Hawaii electric utility  
18 companies, environmental groups, and other similar  
19 institutions with the required expertise. These  
20 studies shall include findings and recommendations  
21 regarding:





- 1           (A) The capability of Hawaii's electric utility
- 2           companies to achieve renewable portfolio
- 3           standards in a cost-effective manner, and shall
- 4           assess factors such as the impact on consumer
- 5           rates, utility system reliability and stability,
- 6           costs and availability of appropriate renewable
- 7           energy resources and technologies, permitting
- 8           approvals, impacts on the economy, balance of
- 9           trade, culture, community, environment, land and
- 10          water, climate change policies, demographics, and
- 11          other factors deemed appropriate by the
- 12          commission; and
  
- 13          (B) Projected renewable portfolio standards to be set
- 14          five and ten years beyond the then current
- 15          standards;
  
- 16          (4) Revise the standards based on the best information
- 17          available at the time if the results of the studies
- 18          conflict with the renewable portfolio standards
- 19          established by section 269-2; and
  
- 20          (5) Report its findings and revisions to the renewable
- 21          portfolio standards based on its own studies and those
- 22          contracted under paragraph (3), to the legislature no

1 later than twenty days before the convening of the  
2 regular session of 2009, and every five years  
3 thereafter."

4 SECTION 7. Statutory material to be repealed is bracketed  
5 and stricken. New statutory material is underscored.

6 SECTION 8. This Act shall take effect upon its approval.



SB3185, SD1

**Report Title:**

Public Utilities Commission; Energy

**Description:**

Establishes a statewide energy efficiency utility and energy efficiency portfolio standards. (SD1)

